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ABSTRACT

One approach to examining the findings of multiple studies is descriptive. This descriptive review of the research on increasing the response rates to mail surveys is based on studies also subjected to a meta-analysis. An initial narrative review identified the studies to be used in both analyses, and results will allow the possibility of comparing results from different research approaches. Independent variables were listed for each study, and the studies were classified and grouped into tables. Review of these tables indicated that some variables produced consistent results, others, mixed results, and others were not extensively studied. Incentives enhanced response rates, but the necessary amount and type were not determined. Enclosed incentives were preferable to those only promised or offered. Advance and followup contacts increased response rates, and university and familiar sponsors tended to produce better responses than marketing firms or those that did not identify sponsoring organization. The effects of personalization and questionnaire format appeared too complex to state simply, with mixed results being found for a number of survey aspects. This descriptive type of review offers insight into the true status of the research. (Contains 21 tables.) (SLD)

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Reviewing the Research on Mail Survey Response Rates:

Descriptive Study

by

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Introduction

There are various approaches to examining the findings of multiple studies dealing with the same or similar variables. The first such efforts were necessarily descriptive in nature. More recently, the availability of computers and software to accomplish more sophisticated analyses, such as meta-analysis, have been used. Meta-analysis is limited in one sense because it relies on having a sufficient number of studies to conduct the analysis. Variables that have not undergone extensive research may not be included or may be grouped with other studies of similar variables, thus losing their distinctive nature. According to Cooper (1989), "the basic premise behind the use of statistics in reviews is that a series of studies have been identified that address an identical conceptual hypothesis" (p. 84). It can be observed that in many areas the authors of the survey research studies differed in their definitions of the independent variables. Cooper also points out that combining control group studies with those using comparison groups that receive different treatments, as might be done in statistical analyses, may mask some differences due to the type of condition with which a treatment is compared. Meta-analysis does, however, have the advantage of being able to examine the quantitative effect of certain variables, while this would be difficult in a descriptive review. This paper follows the descriptive approach, using the same studies that form the basis of a meta-analytic study (Green & Hutchinson, 1996), thereby, possibly for the first time, allowing comparison of results of the two methods while controlling for the data on which the reviews are based. Although Armstrong (1990) compared results of his meta-analysis with Harvey's (1987) descriptive approach, Armstrong limited his analysis to experimental studies, unlike Harvey.

Pevious integrative reviews of research on factors affecting response rates in mail surveys, particularly the descriptive reviews, have seldom provided sufficient information for researchers to attempt to replication (Boser & Clark, 1993). Differences in methods, variables included, and variable definitions (as well as lack of variable definitions) have made comparison of results of the various reviews less than precise (Boser & Clark, 1995). Harris (1982, 1984) has proposed that reviews be reported with the same detail as single research studies. Many of the descriptive reviews (Duncan,1979; Harvey, 1987; Houston & Ford, 1976; Jobber, 1986; Kanuk & Berenson, 1975) are problematic in that they offer little or no information about the method used for finding the studies or the criteria used in determining which studies should be included. Linsky (1975) attempted to include all relevant studies, but without computerized databases, he was ambitious to attempt such an endeavor. Another possible limitation of any review, the present one included, is that studies which did not yield significant differences may be underreported because of difficulty in finding publications that will accept them (Cooper, 1989).

Procedures

After the articles to be included in the study were determined, information regarding each article was recorded on a 5 x 8 card. The reference listing was affixed to each card, then the following information was included when it was provided within the article: independent variable(s), target

population, source of sample, sample size, group size(s), response rates at each stage of the survey that were presented, questionnaire format and number of questions, topic, sponsor, advance contact and/or followups that were used. Some articles presented more than one independent study, and it was not unusual for a single study to have more than one independent variable. Not all studies within an article, nor all variables, were used if sufficient detail was not present in the description.

In some cases the sample size reported was adjusted for nondeliverables by the authors of the studies, in others it was not. In studies where response rates were presented for an experimental group and a control group that did not receive the treatment accorded the experimental group, the response rates for both groups were recorded initially, subsequently using the control group response rate to determine the direction and amount of difference between the experimental and control groups (E - C).

Some study authors differentiated between completions (completed questionnaires) and returns. For this review, the return rate is used when provided, rather than completion rate. In examining the change in response rate after subsequent mailings, various procedures were used by study authors for determining and reporting the percentage of response. The cumulative response rate is used for subsequent mailings unless the N given is the number of nonrespondents to which a particular manipulation was applied.

Creating Tables

After the information was recorded for each study, the independent variables were listed and the studies were classified. This process may lack objectivity, but since the information is presented in table form for the readers, they are free to form their own judgment. It is desirable to have more than one reviewer independently classify the studies and compare their results. In listing the information in the tables, the author was particularly influenced by two previous reviews (Linsky, 1975; Kanuk & Berenson, 1975).

If all survey participants were assigned to experimental or control groups (or comparison groups), of approximately the same size, only the N for the study is reported. If a particular comparison does not involve all groups in the study (such as Watson (1965, who had a single control group and multiple individual treatment groups) or if groups differ considerably in size, the number of individuals in the experimental and control (or comparison) groups are reported. Individual variable effects were isolated whenever possible. This was not always possible, most notably in studies dealing with personalization, so the researcher's interpretation of personalization had to be defined for each study.

Unless otherwise noted, in studies reporting on the effects of prior commitment and advance notice, the response rate is the number of respondents as related to the number in the original group. If the author contacted 500 individuals by phone but sent questionnaires only to those who agreed to participate, nonparticipation was reduced prior to mailing of questionnaires. Using the percentage of those who were sent questionnaires would artificially inflate the response rate in comparison with

individuals sent advance notices through the mail and who were not given an option of refusing to participate.

The population is identified as general public when names were drawn from city directories or phone listings unless the topic of the survey focused on issues related to their residency or phone services. Monetary amounts have not been adjusted for inflation in studies of incentives. In the tables, the studies are usually listed alphabetically, although within some tables there are subclassifications related to the specific variables or comparisons being made. Studies used to examine the effects of followup mailings included only those that specifically included a control or comparison condition related to the sending of the followup.

In compiling the data for this review, it has become obvious that followup contacts do influence results in some cases. Knowing if followups were used (and the number of them), then, becomes an important piece of information for a researcher in evaluating the results of an experimental manipulation. Unfortunately, this information is not always reported. Some variables have what this researcher has termed a Differential Followup Effect, and others have a Followup Reversal Effect. One or more followups have a differential effect when the followup mailings affect groups differently resulting in either an increase or a decrease in the difference between cumulative response rates of the groups. Several examples are cited throughout this review. The Followup Reversal Effect occurs when the difference between cumulative response rates shifts after a followup (or more than one followup) so that the group that originally had the higher response rate becomes the one with the lower response rate.

Because some tables require more than a single page, all tables have been relegated to the Appendix so as to not disrupt the text. It is not that they are less important than the text, for they are, in the perception of the author, more important than the author's attempts to analyze and draw meaning from them. The major contribution of this entire effort may well be the bibliography of research studies.

Findings

Procedural and Cover Letter Variables

Incentives

Incentives are items that are either enclosed, promised, or offered to individuals in an effort to induce them to participate in the survey. Some researchers even consider using colored paper for the questionnaire, sending an advance notice or providing a stamped return envelope as an incentive. Probably the most widely researched topic in the area of survey methodology is the use of incentives. Meta-analyses have been conducted on this factor alone. Almost without exception, incentives improve response rates (see Tables 1 through 4). In this review, there has been no attempt to adjust incentive values to current amounts, thus any conclusions about specific amounts of incentives would be ill advised.

Incentives have frequently been compared to control conditions in which no incentives were used. Comparisons have been made between incentives that are enclosed with those that are promised upon receipt of completed questionnaires. Nonmonetary incentives have been investigated as well as those involving money in some form.

Enclosing money almost universally produces higher response rates than when no money is sent (see Table 1). In general, larger cash incentives produce higher response rates than smaller amounts of money. Promised incentives usually, but not always, yield higher response rates than when no incentive is promised. In direct comparisons, enclosed incentives usually produce higher returns than promised returns of the same value (see Table 1d). The value of a summary of the survey results as an incentive is questionable and may lower response rates (see Table 2). Almost all other nonmonetary incentives produce higher returns than no incentive (see Table 3). Cash is usually more effective than offering respondents a chance to win a larger amount or to have a donation made to charity. Even waiting until the followup mailing to nonrespondents to include an incentive is also effective in increasing response rates, when compared with no incentive conditions, and less costly than sending the incentive to everyone on the first mailing. Increasing the number of incentives (e.g., cash plus promised donation to charity, a pencil plus coffee packet, followup postcard plus offer of results) usually increases the impact on response rate.

Followups

Another variable that has an almost universal impact on response rates is the use of followups. Followups may vary in number and type (postcards, letters, phone reminders, replacement questionnaires). In all but one instance, the group sent the followup(s) had a higher response rate than the control group that was not sent the followup(s) (see Table 5). Not only does the response rate increase with the number of followups, but also followup mailings that include questionnaires generate higher returns than letters alone (Futrell & Lamb, 1981; Swan, Epley & Burns, 1980). Because of differences in procedures (timing, type of followup) and lack of specificity in defining the procedure (i.e., "reminder") it is not possible to further identify the effectiveness of specific techniques.

Advance Contact

Another technique that produces almost unanimous improvement in response rate is utilization of some form of advance contact (also called prior contact, preliminary notification, preletter, etc.). That advance contact may come in the form of a telephone contact, postcard or letter mailed to the potential respondent prior to the mailing of the questionnaire. In only three instances did the advance contact result in a lower response rate than the control group that was not contacted in advance (see Table 6). Phone contacts were most effective in producing an average response rate of 78.5%, 16.4% higher than control groups not contacted. Advance postcards were associated with an average response rate of 47.4%, compared with 44.3% for letters.

Several comparative studies found higher response rates for advance contacts by phone than by letter or postcard (see Table 6e). Two studies also compared the effectiveness of advance contacts with a followup (see Table 6f). In both studies (Jones & Lang, 1980; Kephart & Bressler, 1958), the followup produced a higher response than the advance contact. For Jones and Lang, using both the advance postcard and reminder resulted in another increase of over 5%, while in Kephart and Bressler, no advantage was gained by sending the advance notice when a followup was sent. As was true of incentives, increasing the overall number of contacts has been shown to increase response rates.

Organizational Sponsorship

Surveys sponsored by universities produced the highest response rates in eight of the nine studies in which they were used, the lone exception being Greer and Lohtia (1994), in which honor society sponsorship exceeded university sponsorship (see Table 7). A sponsor with which the respondents were familiar (i.e. Business Week magazine in a survey of Business Week subscribers, company headquarters in a survey of temporary employees) also produced a higher response rate than a research firm. Research firms had the lower/lowest response rates except in the Hawkins (1979) study, when a fictitious research firm had a higher response rate than the actual sponsoring firm for a department store. Even the complete absence of a sponsor produced a higher response rate than a marketing research case in one study (Greer & Lohtia). In the two studies that reported results before and after followups, there were no differential followup effects.

Individual Sponsors

In three out of four studies students designated as the survey sponsor received higher response rates than professors (see Table 8). The exception, Wilde, Tonigan & Gordon (1988), the professor sponsor produced a higher response rate than the president of the graduate student association as well as a graduate student without such prestige. The Master's degree student in Nitecki's (1978) survey of librarians was perceived as the lowest in prestige of the three sponsors but received the highest response. Conversely, Labrecque (1978) found a higher response when the marina owner was perceived as the sponsor rather than the service manager. There is not enough evidence on which to base conclusions regarding the ethnicity, race, and gender of the sponsor, although ethically unidentifiable or neutral names produced higher returns than those which appeared to be Hispanic, Jewish, or African American. Similarly American-Chinese sounding names produced higher returns than foreign-sounding names in a survey of exporters who had American-Chinese sounding names. In Feild's (1975) survey of university faculty members, a higher response was observed when the survey was sent by a male researcher than by a female, and when the cover letter was signed by both a male and a female.

Personalization

Personalization defies simple definition and in some studies is vaguely defined. Personalization may include one or any combination of the following: handwritten signature on the cover letter, a salutation that includes the name of the individual, inclusion of inside address on the cover letter,

individually typed (or produced) cover letters rather than mimeographed or otherwise mass duplicated form letters (although it is possible for form letters to have some elements of personalization added after duplication), envelope addressed to the respondent by name, handwritten postscript, handwritten elements rather than typed, typed addresses on envelopes rather than the use of mailing labels. Elements of personalization are frequently presented as a set of conditions rather than a single one.

There appears to be a benefit to personalization, however there are few concrete answers. For example, the effects of whether the envelope address is handwritten or typed, whether it is typed or labels are used are evidently influenced by other factors. Anderson & Berdie (1975) found varying results with four populations regarding the value of hand addressing envelopes (see Table 9). Cookingham (1985), in two surveys of the same population at different times, obtained different results when comparing typed addresses versus labels. Hand signing cover letters improved response rates for Horowitz & Sedlacek (1974) and Kawash & Aleamoni (1971) but decreased them for Green and Stager (1986). Personally typed cover letters produced higher response rates than mimeographed cover letters for four out of five groups reported by Simon (1967), with the difference in response rates between the typed and mimeographed cover letters ranging from - 7.5% to + 15%. A complex Followup Reversal Effect was found (Roberts, McCrory & Forthofer, 1978), in this case going from + 1.4% advantage for personalizing after one mailing to a - 0.9% deficit after one followup, then back up to + 2.4% after the second followup.

Andreason (1970) compared three versions of varying personalization and obtained the highest response for the least personalized approach, contrary to Carpenter's (1974) findings after three followups. Dillman and Frey (1974) and Worthen and Valcarce (1985) examined the issue of consistency of personalization across mailings, with four mailings in the former study, two in the latter. Both studies found the highest response rate for personalizing all mailings. Dillman and Frey received a higher response from not personalizing any of the mailings than by using a highly personalized mailing on the fourth mailing rather than maintaining the previous level of personalization. Worthen and Valcarce, who reported on only two mailings, also found that not personalizing either mailing produced a higher return than personalizing one mailing but not the other.

Appeals

Appeals have been found to have both negative and positive impact on response rates when compared to control groups whose correspondence did not contain the appeal (see Table 10). It may be necessary to further examine the circumstances surrounding the survey when deciding whether it is advisable to use an appeal. Other factors might include the following: the population, survey topic, length of the questionnaire, advance contact, followup(s), etc. The negative impact of including an appeal diminished with each followup in a survey of dentists (Roberts et al., 1978) but still had not sufficiently recovered to match the response rate of the group not receiving the appeal even after two followups. If an appeal is deemed to be advantageous in a particular survey, it is still somewhat problematic selecting

the most effective one. While egoistic, social utility, and help the sponsor appeals have probably been studied most widely, their relative effectiveness has not been firmly established.

Postage - Outgoing

Postage is another variable that has been the subject of considerable research. There is much less replication of specific procedures, however, than was true for incentives. Postage is classified and grouped as outgoing, outgoing on followup mailings, and return postage. Special mailing (Federal Express, special delivery, certified mail, air mail) on initial outgoing mailings consistently produced noticeably higher response rates than first class, regular or franked mail (see Table 11). Comparison of first class with other classes of mail has provided inconsistent results with regard to which produces a higher response, but response rates have not generally varied substantially (4% or less). Two of three studies comparing commemorative stamps with metered mail found higher response rates when outgoing mail was metered rather than contained a stamp.

Using special postage (special delivery or certified mail) for followup mailings has invariably produced higher returns than regular mail (see Table 12). The difference in response rates between special postage and regular mail varies widely, however.

Return Postage

In all but two of 15 studies, stamped return envelopes produced clearly higher response rates than business reply envelopes (see Table 13). There was a Followup Reversal Effected noted in the Elkind, Tryon & deVito (1986) study. What was a 3.2% difference in response rate favoring stamped envelopes after the initial mailing was reversed to a 0.4% deficit after a followup mailing. Corcoran (1985) who also reported response rates before and after a followup, found a Differential Followup Effect, with the 11.3% advantage of using stamped envelopes decreased to a 4% advantage after the followup.

When compared with commemorative stamps on return envelopes, regular stamps were more effective in three studies, less effective in two. Stamps produced higher response rates than mailing permits in two studies, but not in the third one examining this issue.

Deadline

Stating a deadline for return of questionnaires sometimes results in higher returns than not indicating a deadline, but other studies show lower returns (see Table 14). Increasing the time allowed for return of questionnaires from five to seven days and from seven to nine days increased response rates for Nevin and Ford (1976). In examining returns for a specific time period, three studies found return rates from 42.1% to 43.3% when a five day deadline was used. For a one week deadline, response rates of 28.8%, 32.6%, and 48.5% were observed, with even more variation in effect when compared with the no-deadline control groups (+ 4.7%, - 50.8%, and - 1.3% respectively).

Questionnaire Variables

Colored Paper

Using colored paper for questionnaires was more effective than white paper in five studies, less effective in two (see Table 14). Different colors produced different amounts of impact on response rate when compared to white paper in the various studies, but the effects within each study were consistent. In the three studies that used more than one color of paper (Glisan & Grimm, 1982; Greer & Lohtia, 1994; Pressley & Tullar, 1977), each color of paper produced a similar effect, either increasing or decreasing response rate.

Anonymity

Including an identification number has more often than not resulted in lower response rates. Four studies obtained higher response rates with either an identification number or name and address on the questionnaire, while in six studies lower response rates were produced, and there was no difference between coded and uncoded questionnaires in one study (see Table 15). Mason, Dressel and Bain (1961) found virtually no difference when name and address were added to forms that already contained identification numbers. Asking individuals to provide identifying information has also brought mixed results, higher response rates in two groups, lower in the other two.

Providing a statement regarding anonymity yielded higher response rates for Futrell and Hise (1982) and Tyagi (1989). Giving respondents the option of removing the coded information, however, lowered response rates in both studies in which it was used (Erdos & Regier, 1977; Shale, 1987). Explaining the purpose of the identification number had a similar effect for Erdos and Regier (1977), but not for Childers and Skinner (1985).

Questionnaire Length

Length is defined by number of pages and the number of items. If two versions of an instrument were developed of different numbers of pages but the same items, the difference is classified as a format difference, rather than length (although the respondent may perceive the instrument to be longer).

Of the 15 studies in which instruments of varying lengths were used, the shorter/shortest questionnaire had the best response rate in eight studies, the longer questionnaire in four studies, and the mid-length questionnaire in one study (see Table 16). The followup effects can be seen in two studies. In Brown (1965), a followup and reminder nullified the advantage of using a shorter instrument, and in the Jacobs (1986) study the initial advantage of the longer questionnaire was reversed by the use of a reminder. It is somewhat difficult to rank order the five instrument versions of the Dillman, Sinclair and Clark (1993) study by length. It appears that the card stock version is the shortest one, but it was second to the micro version in response rate.

Questionnaire Format/Layout

Studies in this group varied the construction and appearance of the questionnaire without changing the number of items. Because of the many variations that exist, it was difficult to attempt to

find generalizations. Frequently more than one variable was incorporated into the format. For example, Ford (1968) used different size paper, different reproduction methods, and stapled versus folded/folder-type construction (see Table 17).

Three of the studies (Boser, 199b; Champion & Sear, 1969; Jacobs, 1986) were subject to the Differential Followup Effect. Almost all of the other studies in this group reported response rates at only a single point in time, making it impossible to tell whether there might have been any differences that were negated or reversed by the use of followups.

Booklet construction has been compared to stapled single pages, but results are mixed. In studies comparing questionnaires having smaller dimensions (height and width) with larger ones, the findings have been about evenly divided. Two studies experimented with spreading the same number of items over a larger number of pages. Both Wilde, Tonigan and Gordon (1988) and Champion and Sear (1969) received the highest response rate for the long version. However, on a followup of 300 nonrespondents, Champion and Sear found the mid-length questionnaire received the highest return. Childers and Ferrell (1979) found that using 8 1/2 x 11 inch paper produced 10% higher return rate than 8 1/2 by 14 inch paper.

Some studies dealing with individual variables have not been replicated within the parameters used to select studies for this paper. Hesseldenz and Smith (1977) found little difference between offset printed and computer prepared questionnaires when both were personalized. Horowitz and Sedlacek (1974) found typed questionnaires had the highest response rate, followed by photocopied questionnaires and mimeographed ones. Jacobs (1986) found using optical scan sheets for respondents to mark their responses produced a slightly lower response rate to the initial mailing, but this was reversed after a reminder was sent.

Variables That Have Not Been the Subject of Extensive Investigation.

Mailing Procedures

Three studies have found that mail sent to work addresses produced higher response rates (from 0.7% to 10% increases) than mail sent to home addresses (see Table 18). A message on the outside of the envelope regarding money increased returns, but labeling the outgoing envelope as "personal" or directing the return envelope to "Attention: *signer of the letter*" had the opposite effect. Using a university envelope produced a higher response to the initial mailing than one with the return address rubber stamped on it, but this was reversed after a followup (Elkind et al., 1986).

Commitment cards can be included with an advance mailing or when the questionnaire is sent. Duhan and Wilson (1990) obtained a higher response rate from marketing executives when cards were sent with prenotification, but Childers and Skinner (1985) obtained their highest return rate from the group not sent commitment cards. Postcards that had a place for respondents to indicate they did not intend to participate and state the reason produced higher returns than those that only indicated the

questionnaire had been returned in a survey of church members (Senf, 1987). Hinrichs (1975) found a Differential Followup Effect when commitment cards were used in a survey of administrators.

Cover Letter Variables

Hawkins (1979) found that including full disclosure of the participant's right to refuse to participate in the survey lowered the response rate by almost 5% (see Table 19). Rucker, Hughes, Thompson, Harrison, and Vanderlip (1984) found that including an individual's photo on the cover letter could help or hinder returns, and that followup did influence results. Wagner & O'Toole (1985) obtained better results using a traditional approach when surveying college department heads.

Short time cues do not necessarily produce higher response rates than longer ones or no time cues. Stating that an incentive obligates the respondent to participate was found more effective than calling it a token of appreciation in two studies, but including a simple message of appreciation resulted in lower returns in another study (Robin & Walters, 1976). Nonrespondents were more likely to return questionnaires when told they would be interviewed during a two week period than on a specified date, however not including a statement regarding the proposed interview produced a return rate similar to that obtained when the two week period was mentioned (Dommeyer, 1987).

Questionnaire

Asking race information makes little difference in response rate (Sheth, LeClaire & Wachspress, 1980) (see Table 20). The size of the income categories ($5,000 or $10,000) and the option to check two adjacent categories rather than only one had little or no effect on response rates (Swan & Epley, 1981). Omission of a classification question improved response rate by 25% for Watson (1965), but inclusion of other types of items had little effect.

Either researchers are not always able to accurately determine which questions will be perceived as easy by respondents, or placement of easy questions first on the questionnaire is not necessarily related to response rate. Three studies compared question order but failed to yield consistent results in direction or extent.

Researchers must also be careful in selection of a drawing if they put one on the questionnaire cover. Frey (1991) and Pressley and Tullar (1977) found less than one percent difference when a drawing was added, while Longworth (1953) found an adverse effect (- 7%) when a drawing of a family quarrel was used on the questionnaire cover.

Study Context

Some interesting and fairly unique variables have been investigated from time to time. While the researcher is not usually free to choose the population, it may be helpful to know that middle class individuals may respond at higher rates than lower class (Gelb, 1975), and that residents of large cities at higher rates than those in small towns (Rudd & Maxwell, 1980) (see Table 21). Rudd and Maxwell also found slight differences in response to surveys on four different topics in 1980, with respondents from the general public showing higher interest in current issues and health care than quality of life and taxes.

Current situations would certainly be expected to have some impact on the amount of interest people have in particular topics.

It is sometimes difficult for researchers to predict the relevance a topic has for potential respondents. As expected, bowlers were much more likely to return questionnaires related to bowlers and bowling facilities than about restaurants (Martin, 1994). Webb (1989), however, found little difference in response to a survey about agriculture from two groups of students, one of whom had no apparent interest in agriculture. Woodward and McKelvie (1985) found the questionnaire they had determined to be of low interest to their population returned at a higher rate than one thought to be of high interest.

Discussion

There are some variables that have produced consistent results, some that have produced mixed results, and some that have not been extensively studied. For the variables in the second group, consideration of other characteristics of the survey may provide some helpful keys in determining the situations in which they are effective. Individuals may find a challenge in replicating some of the studies in the third group to further establish (or dispute) their findings.

Incentives enhance response rates, but the type and amount (if monetary) are not determined. Enclosed incentives are preferable to those that are only promised or offered. Advance and followup contacts also increase response rates, with telephone advance contacts being more effective than those by mail. Increasing the number of incentives and/or contacts has an incremental effect on response rates. University and familiar sponsors tend to produce higher response rates than marketing research firms and surveys that identify no sponsoring organization. Use of special mail for outgoing mailings, as well as the use of stamped envelopes rather than business reply envelopes for return mail , generally bring higher response rates.

The effects of personalization and questionnaire format appear to be too complex to simply state that they do or do not affect response rates, however consistency in either personalizing or not personalizing may be more productive than mixing the two. Mixed results have been found for the following: utilization of appeals, stating a deadline, colored questionnaire paper, inclusion of identifying information, questionnaire length, and questionnaire format/construction. The most conducive characteristics for the individual signing the cover letter have not been thoroughly established. In addition, there are several other variables that have little research to support them.

This descriptive type of review allows the reader greater insight into the true status of the research. Rather than collapsing the findings of a number of studies into an overall effect of a certain amount, it is possible to note the variation in response rates and when negative as well as positive impact has been found for a variable. The general level of response rate is also presented. A gain of 10% in response rate could potentially have more impact if the control group achieved a response rate of 35%

than if it were 75%. Real differences in response rates are presented rather than levels of statistical significance.

Many of the studies included in this review are inadequately reported. At least one set of previous researchers doing a quantitative review of mail survey methods contacted authors to obtain missing information (Bruvold & Comer, 1988). Conant, Smart and Walker (1990) have developed a checklist of information they thought should be included in all articles that were published reporting mail surveys, but many studies were published prior to their checklist, and journals have not, to the knowledge of this researcher, done anything toward standardizing the information on mail surveys that is included in studies that are published. Information about the presence or absence of one or more variables is simply not mentioned in the article. Review articles also need more thorough reporting so the reader can identify the variables that are studied and understand how the author selected the studies that became part of the review. Telling what computer databases were searched is inadequate without specifying the search terms that were used.

This study is but a beginning. We still have much to learn. This review does not really address situations in which multiple variables are manipulated, and this is an area for further study. Yammarino, Skinner and Childers (1991) found some survey variables differentially affected by two moderators: type of sample and year of publication or when the study was conducted. Jobber (1986) has also noted that survey methods that are successful with nonindustrial populations cannot be assumed to produce comparable results with nonindustrial populations. Modern technology has facilitated personalization and enables researchers to produce professional looking questionnaires that were previously available only through professional printing processes. Much of the research in survey methods has been carried out by market researchers and public opinion pollsters. Perhaps as a result, a considerable number of the studies are directed toward the general public, rather than a more homogeneous target population.

This review focused on response rates and the variables that might aid in attaining high response rates. Another important aspect to be examined is whether those responding to a condition differ in their responses from those in a comparison or control group. For example, do the individuals who respond when an incentive is included differ from those who respond when there is no incentive? Some research has been done in this area but it is not extensive. Another issue yet to be resolved is the level of response necessary to secure adequate representation: at what point is the number of respondents sufficient so the results are similar to what would have been obtained if more (or all) individuals had responded? It is to be hoped that this review will provide some information and encouragement to those who wish to pursue research in survey methods.

References

Armstrong, J. Scott. (1990). Class of mail does affect response rates to mailed questionnaires: Evidence from meta-analysis. Journal of the Market Research Society, 32, 469-471.

Boser, Judith A., & Clark, Sheldon B. (1993, April). Response Rates in Mail Surveys: A Review of the Reviews. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA. (ERIC Document Reproduction Service No. 356 378)

Boser, Judith A., & Clark, Sheldon B. (1995, November). Factors Influencing Mail Survey Response Rates: What Do We Really Know? Paper presented at the annual meeting of the Mid-South Educational Research Association, Biloxi, MS.

Bruvold, Norman T., & Comer, James M. (1988). A model for estimating the response rate to a mailed survey. Journal of Business Research, 16(2), 101-116.

Conant, James S., Smart, Denise T., & Walker, Bruce J. (1990). Mail survey facilitation techniques: An assessment and proposal regarding reporting practices. Journal of the Market Research Society, 32, 569-580.

Cooper, Harris M. (1982). Scientific guidelines for conducting integrative research reviews. Review of Educational Research, 52, 291-302.

Cooper, Harris M. (1984, 1989). Integrating Research: A Guide for Literature Reviews. Newbury Park, CA: Sage Publications.

Duncan, W. Jack. (1979). Mail questionnaires in survey research: A review of response inducement techniques. Journal of Management, 5, 39-55.

Green, Kathy E., & Hutchinson, Susan R. (1996, April). Reviewing the Research on Mail Survey Response Rates: Meta-Analysis. Paper presented at the annual meeting of the American Educational Research Association, New York.

Harvey, Lee. (1986). A research note on the impact of class-of-mail on response rates to mailed questionnaires. Journal of the Market Research Society, 28, 299-300.

Harvey, Lee. (1987). Factors affecting response rates to mailed questionnaires: A comprehensive literature review. Journal of the Market Research Society, 29, 341-353.

Houston, Michael J. & Bord, Neil M. (1976). Broadening the scope of methodological research on mail surveys. Journal of Marketing Research, 13, 397-403.

Jobber, David. (1986). Improving response rates in industrial mail surveys. Industrial Marketing Management, 15, 183-195.

Kanuk, Leslie & Berenson, Conrad. (1975). Mail surveys and response rates: A literature review. Journal of Marketing Research, 12, 440-453.

Linsky, Arnold S. (1975). Stimulating responses to mailed questionnaires: A review. Public Opinion Quarterly, 39, 82-101.

Yammarino, Francis J., Skinner, Steven J., & Childers, Terry L. (1991). Understanding mail survey response behavior. A meta-analysis. Public Opinion Quarterly, 55, 613-639.

Table 1

Monetary Incentives

Study	Population	N	En/Cn	Reponse Rate	Difference (E - C)	Incentive
a. Enclosed Incentives						
Armstrong & Yokum, 1994	forecast professionals	347	137/210	59.1%	+ 12.9%	$1
Biner & Barton, 1990	general public	200		69.1%		$1.00
				48.9%		.25
Chawla, Balakrishnan, & Smith, 1992	medical equipment dealers	600		39.2%	+ 29.8%	$1
Dommeyer, 1987	general public (nonrespondents)	1,056		24%	+ 5%	.25
Erdos & Regier, 1977	Wall Street Journal subscribers	1,200		71.7%	+ 23.9%	$1
Erdos & Regier, 1977	Wall Street Journal subscribers	800	400	43.3%		.25 in first mail
			400	57.0%		$1 in first mail
after followup				58.0%		.25 in first mail
				66.8%		$1 in first mail
Friedman & SanAugustine, 1979	general public	600		37.7%	+ 15.7%	.25
Gillpatrick,Harmon, & Tseng, 1994	engineers/managers	619	406/213	43.8%	+ 24.6%	$1
Hopkins, Hopkins, & Schon, 1988	librarians			80%	+ 21%	$1
after 1 followup				86%	+ 12%	$1 (on first mailing only)
James & Bolstein, 1990	cable subscribers	850		62.7%	+ 8.5%	.25
				63.1%	+ 8.9%	.50
				72.8%	+ 18.6%	$1
				77.6%	+ 23.4%	$2
after 1 followup				74.6%	+ 2.6%	.25
				78.0%	+ 6%	.50
				88.2%	+ 16.2%	$1
				88.2%	+ 16.2%	$2
after 2 followups				82.8%	- 0.5%	.25
				82.7%	- 0.6%	.50
				91.7%	+ 8.4%	$1
				94.7%	+ 11.4%	$2
after 3 followups				86.4%	- 1.7%	.25
				86.5%	- 1.6%	.50
				92.9%	+ 4.8%	$1
				95.9%	+ 7.8%	$2
Kephart & Bressler, 1958	nurses		100/100	55%	+ 3%	.01
			100/100	54%	+ 2%	.05
			100/100	57%	+ 5%	.10
			100/100	70%	+ 18%	.25
Kimball, 1961	electronics manufacturers	3000	1,000,/1,000	41.4%	+ 11%	.10
London & Dommeyer, 1990	design engineers	1000		24.1%	+19.2%	$1
Newman, 1962	magazine subscribers	375	75/75	46.7%	+ 17.4%	.25
	(2 page questionnaire)		75/75	53.3%	+ 24.0%	$1
	(4 page questionnaire)	375	75/75	37.3%		.25
			75/75	61.3%		$1
Mizes, Fleece, & Roos, 1984	allergy specialists	200		73.7%	+ 21.1%	$1 check, answer postcard
				73.7%	+ 21.1%	$5 check, answer postcard
				52.6%	nd	$1 answer/check
				71.8%	+ 19.2%	$5 answer/check
Pressley & Tuller, 1977 (with 1 followup)	marketing research drectors	280		44.5%	+ 11.2%	.10
Robin & Walters, 1976	general public	1,522		40.5%	+ 21%	.10
Shuttleworth, 1931	general public	997	608/376	51.6%	+ 32.5%	.25 enclosed

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Table 1. Incentives (continued)

Study	Population	N	En/Cn	Reponse Rate	Difference	Condition
Taylor & Anderson, 1989	loan officers	60		73.5%	+ 10.0%	$1
Tedin & Hofstetter, 1982	general public		330/1,012	29%	+ 15%	.25
after 1 followup				41%	+ 10%	
Welch & Massey, 1987	former bank customers	900		64.4%	+ 23.6%	$1
	customers			49.6%	+ 8.8%	$1 check w/questionnaire on back
Wiseman, 1973	general public	464		47.0%	+ 8.2%	.10
Zusman & Duby, 1987	college dropouts	371	200/171	54.2%	+32.5%	$1
after 1 followup				63.5%	+18.9%	$1
b. Promised or Offered Incentives						
Balakrishnan, Chawla, Smith, & Michalski, 1992	oil product customers	6,384		14.9%	+ 8.7%	drawings $300 - $1000
Balakrishnan et al, 1992	general public	6,384		9.8%	+ 4.6%	prize drawing
Faria & Dickinson, 1992	manufacturing customers	150		34.4%	+ 6.2%	promised $2.50 to unspecified charity
				39.2%	+ 11.0%	promised $2.50 to 1 of 3 charities
Gitelson, Kerstetter, &. Guadagnolo, 1993 (with followup)	road race participants	1,200		67.3%	+ 9.3%	raffle
Lam, Malaney, & Oteri, 1990	university students	3300		51.3%	+ 3.9%	raffle
London & Dommeyer, 1990	design engineers	1500		6.0%	+ 3.8%	sweepstakes
				5.1%	+ 2.9%	sweepstakes & gift (unspecified) to all respondents
Robertson & Bellenger, 1978	phone customers	450		26.0%	+ 2.7%	$1 promised to respondent
				41.3%	+ 18.0%	$1 promised to charity
Schewe & Cournoyer, 1976	tourists	900		25.0%	- 3.0%	$1.00 promised
				41.0%	+ 13.0%	$2.00 promised
				40.5%	+ 12.5%	$3.00 promised
				44.0%	+ 16.0%	$5.00 promised
Spry, Hovell, Sallis, Hofstetter, Elder, & Molgaard, 1989	general public	600		27.3%	+ 4.6%	lottery
after 1 followup				32.7%	+ 0.3%	lottery
Spry et al., 1989 (with 1 followup)	general public	309		29.1%	+ 8.2%	lottery
c. Comparison of Enclosed and Promised Incentives						
Berry & Kanouse, 1985 (with 3 followups)	doctors		1011/1017	78%		$20 enclosed
				66%		$20 promised
Gelb, 1975	general public - middle class	400		54%		.50 enclosed
				45%		.50 promised
	general public - lower class			15%		.50 enclosed
				25%		.50 promised
				34.5%		enclosed (combined groups)
				35.0%		promised (combined groups)
Hancock, 1940	general public	6,197		47.2%	+ 37.6%	.25 enclosed
				17.6%	+ 8%	.25 promised
Shank, Darr, & Werner, 1990	wholesalers	1428		5.7%	+ 3.7%	50 cents enclosed
				2.6%	+ 0.6%	50 cents promised
				6.8%	+ 4.8%	$1 enclosed
				1.0%	- 1.0%	$1 promised
				5.0%	+ 3.0%	golf kit enclosed
				4.5%	+ 2.5%	golf kit promised
Spry et al., 1989	general public		88/3,114	12.5%	+ 2.1%	enclosed $1
			90/3,114	13.3%	+ 2.9%	promised $1
			96/3,114	21.9%	+ 11.5%	promised $5
Wotruba, 1966	gen public	150		40%		.25 enclosed
				20%		.50 promised

Table 2

Non-Monetary Incentives

Study	Population	N	En/Cn	Reponse Rate	Difference	Condition
Brennan, 1958	general public	456	235/221	29%	+ 7%	50 trading stamps enclosed
Dommeyer, 1985	business students	420		43%	+ 1%	offered summary of results
Dommeyer, 1989	computer owners, mfrs, retailers	900		23% 16%	- 1% - 8%	offered summary offered summary in Lift Letter
Ferriss, 1951	sociology instructors		141/89	62.4%	+ 36.6%	stamped return envelope included
Furst & Blitchington, 1979	school principals	200		68%	+ 5%	descriptive letter describing the research study included along with cover letter
Hawes, Crittenden, & Crittenden, , 1987	supermarket executives	472		39.2%	+ 4.8%	summary
Houston & Jefferson, 1975	new car buyers	400		51.0%	+ 18.5%	ball point pen
Kerin & Harvey, 1976	Fortune 500 firms	440		34.1%	- 3.2%	stamp on reply envelope
Longworth, 1953	general public	100		19%	+ 5%	newspaper article describing the research
May, 1960	engineers	657		35% 20% 12%	+ 22% + 7% - 1%	ball point pen enclosed golf ball offered summary offered
Miller, 1994 (with 2 followups)	professors	1,000		63.5%	+ 8.8%	one cup coffee bag
Nitecki, 1978	librarians	738		74.8%	+ 2.7%	bookmark
Powers & Alderman, 1982	high school juniors	2,012		50.1%	+ 4.6%	summary
Tyagi, 1989	insurance salesmen	600		68.3%	- 1.4%	summary
Whitmore, 1976 (with 1 followup)	new car owners	1000		57.4%	+ 5.2%	key ring
Wilde, Tonigan, & Gordon, 1988	postsecondary instructors, national lab employees	426	71/71	42.3%	+9.9%	self addressed stamped envelope
Wiseman, 1973	general public	464		40.0%	- 5.7%	summary

Note. Lift letter (Dommeyer,1989): in addition to cover letter; on outer side, handwritten message *"Read this only if you're not responding!"* Offer of summary was included in lift rather than cover letter.

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Table 3

Comparisons of Mixed Types of Incentives and Incentives on Various Mailings

Study	Population	N	En/Cn	Reponse Rate	Difference	Condition
a. Incentive on First Mailing						
Denton & Tsai., 1991 (with 1 followup)	alumni	297	32/136	31.3%	- 12.1%	.25
			85/136	58.8%	+ 15.4%	had received newsletter
Denton et al., 1991 (with 1 followup)	alumni	100		81%	+ 21%	.25
				74%	+ 14%	.50
				78%	+ 18%	$1
				68%	+ 8%	raffle for journal
Dommeyer, 1988	general public	600		50%	+ 13%	.25 coin
				37%	nd	.25 appreciation?
				38%	+ 1%	.25 money order
				30%	- 7%	drawing for $25
				33%	- 4%	$25 divided among early returnees
Finlay & Thisthlewaite, 1992	general public	1,206		65.5%	+ 28.4%	$1
				30.6%	- 6.5%	promised donation to charity
Glisan & Grimm, 1982	farmers	1,512		24.2%	+ 9.7%	.25
				19.4%	+ 4.9%	summary
Hansen, 1980	industrial safety engineers	2,425		38.0%	+ 23.9%	.25
				22.0%	+ 7.9%	pen of comparable value
Hubbard & Little, 1988a	bank customers	3,150		40.4%	+ 13.5%	.25
				56.4%	+ 29.5%	$1
				29.6%	+ 2.7%	chance to win $50
				28.2%	+ 1.3%	chance to win $100
				28.7%	+ 1.8%	chance to win $150
				37.8%	+ 10.9%	chance to win $200
Hubbard & Little, 1988b	general public	2,000		56.8%	+ 16.3%	.25
				68.0%	+ 27.5%	$1
				33.5%	- 7.0%	promised $1 to charity
				51.8%	+ 11.3%	chance to win $200
James & Bolstein, 1992	subcontractors	1200		40.7%	+ 20.0%	$1
				48.7%	+ 28.0%	$5 cash
				52.0%	+ 31.3%	$5 check
				44.0%	+ 23.3%	$10 check
				54.0%	+ 33.3%	$20 check
				54.0%	+ 33.3%	$40 check
				23.3%	+ 2.6%	promise of $50
after 1 followup				52.0%	+ 15.3%	$1
				60.7%	+ 24.0%	$5 cash
				62.7%	+ 26.0%	$5 check
				56.7%	+ 20.0%	$10 check
				70.7%	+ 34.0%	$20 check
				63.3%	+ 26.6%	$40 check
				43.3%	+ 6.6%	promise of $50
after 2 followups				61.3%	+ 14.6%	$1
				66.7%	+ 20.0%	$5 cash
				66.7%	+ 20.0%	$5 check
				62.0%	+ 15.3%	$10 check
				75.3%	+ 28.6%	$20 check
				66.0%	+ 19.3%	$40 check
				53.3%	+ 5.6%	promise of $50
after 3 followups				64.0%	+ 12.0%	$1
				71.3%	+ 19.3%	$5 cash
				67.3%	+ 15.3%	$5 check
				66.7%	+ 14.7%	$10 check
				79.3%	+ 27.3%	$20 check
				69.3%	+ 17.3%	$40 check
				56.7%	+ 4.7%	promise of $50
Little & Englebrecht , 1990	magazine rrespondents	1000		27.3%	+ 3.3%	pan scraper
				37.3%	+ 13.3%	.25
Lorenzi, Friedmann, & Paolillo, 1988	businessmen, legislators	400		65%	+ 29%	$1
				33%	- 3%	promised $2
				41%	+ 5%	$100 lottery

Table 3. Comparisons of Mixed Types of Incentives and Incentives on Various Mailings (Continued)

Study	Population	N	En/Cn	Reponse Rate	Difference	Condition
McDaniel & Jackson, 1984	farmers & ranchers	3001	750/1501	37.2%	+ 13.7%	.25
			750/1501	25.8%	+ 2.3%	chance at $100
Shank, Darr, & Werner, 1990	food service distributors	4610		11.6%	+ 6.6%	.50 enclosed
				5.7%	+ 0.7%	summary
				11.0%	+ 6.0%	mini calculator
				6.1%	+ 1.1%	drawing for tv
Watson, 1965	Bus Week subscribers	10,500	500/1,000	40%	+ 10%	.10
			500/1,000	48%	+ 18%	.25
			500/1,000	41%	+ 11%	packet of stamps
Wilde et al., 1988	instructors + national lab	426	71/71	52.1%	+ 19.7%	.50
			71/71	31.0%	- 1.4%	drawing for $50
b. Incentives on Subsequent Mailings						
Erdos & Regier, 1977	Wall Street Journal subscribers		600/600	71.7%	+ 23.9%	$1 in first mailing
after followup			400/400	79.5%	+ 13.2%	$1 in second mailing
			200	82.5%		$1 in first and second mailings
			200	73.5%		$1 in first mailing only
			200	76.5%		$1 in second mailing only
			200	59.0%		no incentive
Furse, Stewart & Rados, 1981	phone customers		295/294	36%	+ 15%	.50
		NR	114	43%		sent .50 on followup
			93	25%		sent incentive only on first
			88	25%		sent incentive on both 1st & second
			116	22%		no incentive either mailing
			81	31%		preliminary phone, no incentives
			84	38%		preliminary phone, incentive second
Huck & Gleason, 1974	university students	200	50/150	78%	+ 28%	.25
after 1 followup			50/100	92%	+ 27%	those who received first incentive
			50/100	85%	+ 20%	.25 on first followup
after second followup			50/50	94%	+ 23%	.25 on first mailing
			50/50	92%	+ 21%	.25 on first followup
			50/50	78%	+ 7%	.25 on second followup
Tedin & Hofstetter (1982)	general public			29%	+ 15%	$25 incentive on first mail
after 1 followup				41%		incentive on first mailing
				35%		incentive on second mailing
c. Incentives after initial refusal to participate						
Snyder & Lapovsky, 1984	general public (had refused to participate when called initially)		1632*	25.1%**		agreed to participate when called second time (control, no incentive)
			1526*	29.5%**	+ 4.4%	sent letter prior to second call
			1536*	43.4%**	+ 18.3%	sent letter with $1 prior to second call
			832*	36.7%**	+ 11.6%	sent letter plus silver colored pen with company logo
			668*	35.0%**	+ 9.9%	sent letter plus keychain pen with log
				45.4%***		control (no incentive)
				43.2%***	- 2.2%	letter only
				50.0%***	+ 4.6%	letter plus $1
				46.6%***	+ 1.2%	letter plus pen
				49.0%***	+ 3.6%	letter plus keychain pen

* Individuals who had refused to participate when called the first time.
** Percentage agreeing to participate after receiving second phone call (preceded by incentive(s) as indicated)
*** Return rate of those who agreed to participate on second phone call

Table 4

Multiple Incentives

Study	Population	N	En/Cn	Reponse Rate	Difference	Condition
Cook, Schoeps & Kim, 1985	drug prog admin.	250		22%		feeedback, promised $100 if they participated in later survey
				27%		feedback only
Furse & Stewart, 1992	product owners	600		68%	+ 14%	.50
				76%	+ 22%	$1
				56%	+ 2%	promised $1 to charity
				71%	+ 17%	.50 + promised $1 to charity
				78%	+ 24%	$1 + promised $1 to charity
Pucel, Nelson & Wheeler, 1971	vocational school alumni	1,100		54.7%	+ 11.8%	pencil
				49.5%	+ 6.6%	one cup coffee packet
				51.5%	+ 8.6%	advance letter
				52.6%	+ 9.7%	pencil + colored questionnaire
				57.7%	+ 14.8%	pencil + advance letter
				62.5%	+ 19.6%	pencil + color + advance
				55.6%	+ 12.7%	coffee + color
				54.1%	+ 11.2%	coffee + advance letter
				63.2%	+ 20.3%	coffee + color, + advance
				51.4%	+ 8.5%	one: pencil, coffee, color, or advance
				55.0%	+ 12.1%	two: pencil or coffee + color or advance
				62.8%	+ 19.9%	three: pencil or coffee + color + advance
Wilde et al., 1988	instructors + national lab employees	426	71/71	63.4%	+ 31.0%	self addressed stamped envelope + .50
			71/71	54.9%	+ 22.5%	self addressed stamped envelope + drawing for $50.00
			71/71	52.1%	+ 19.7%	.50
			71/71	31.0%	- 1.4%	drawing for $50
Wiseman, 1973	general public	464		24.0%		none
				37.8%		one of four: followup postcard, 10 cents, stamped return envelope, offer of results)
				45.2%		two of four
				48.5%		three of four
				48.0%		all four

Table 5

Effect of Sending Followup(s)

Study	Population	N	En/Cn	Reponse Rate	Difference	Condition
a. Control Group Studies						
Boser, 1990b	university alumni		182/94	40.7%	+ 5.3%	reminder
Cox, Anderson & Fulcher, 1974	general public	4,000		18.3%	+ 1.1%	postcard (after 3 days)
Erdos & Regier, 1977	Wall Street Journal subscribers	800		67%	+ 9.2%	postcard (reminder)
Etzel & Walker, 1974	credit card holders	700	193/299	59.0%	+ 20.2%	reminder
			193/299	52.9%	+ 14.1%	questionnaire & return envelope
Futrell & Lamb, 1981	farmers & ranchers	2,002		15.7%	+ 3.1%	letter reminder
				23.4%	+ 10.8%	questionnaire
				16.0%	+ 3.4%	2 letter followups
				29.7%	+ 17.1%	2 followups, both w/questionnaire
				20.3%	+ 7.7%	3 letter followups
				34.3%	+ 21.7%	3 followups, all with questionnaire
Kephart & Bressler, 1958	nurses		100/100	68%	+ 16%	followup
Lam, Malaney & Oteri, 1990	university students (NR)	2,237		34.0%	+ 7.7%	phone contact (prior to second followup)
Longworth, 1953	general public	100		63%	+ 37%	phone or postcard (1 week)
Martin, Duncan & Sawyer, 1984	university students	2,000		25.3%	+ 4%	followup
Myers & Haug, 1969	general public	700		28.0%	- 0.9%	letter
Nichols & Meyer, 1966	college students	1,600		58.0%	+ 21.0%	postcard (3 days)
after postcard to all and second questionnaire				88.5%	+ 4.5%	3 day postcard group
Peterson, 1975	consumers	3,840		29.8%	+ 5.2%	postcard
Watson, 1965	Business Week subscribers		500/1000	37%	+ 7%	postcard (to NR)
			500/1000	46%	+ 16%	2 day followup mailing to all
Wiseman, 1973	general public	464		47%	+ 8.2%	postcard
b. Comparison Group Studies						
Boser, 1990b	university alumni		94	45.7%		postcard reminder
			88	35.2%		letter reminder
			92	44.6%		reminder mailed after 2 weeks
			90	36.7%		reminder mailed after 1 week
			47	42.3%		second questionnaire after 3 weeks (no reminder)
			47	25.5%		second questionnaire after 4 weeks (no reminder
Nevin & Ford, 1976	university students (NR)	670		37.7%		veiled threat (followup message)
				22.5%		casual followup message
Ogborne, Rush, & Fondacarro, 1986	health,social service professionals (NR)	78		38%		mailed second questionnaire
				33%		phoned, with offer to conduct phone interview
Roscoe, Lang & Sheth, 1975	phone customers (NR)	2,144		76.4%		phone call followed by second qre
				69.6%		postcard followed by second qre e
				65.9%		letter followed by phone interview
				57.0%		unannounced phone interview
Sletto, 1940	alumni (NR)	192		29%		postcard reminder
				29%		letter reminder
Swan , Epley & Burns, 1980	real estate brokers (NR)		456	7.7%		letter and questionnaire
			456	7.5%		letter

Table 6

Advance Contact

Study	Population	N	En/Cn	Reponse Rate	Difference	Type of Advance Contact
a. Letter						
Boser, 1990a (with followups)	university alumni	288		39.9%	+ 2.9%	letter
Ford, 1967	general public	949		39.6%	+ 6.7%	letter
Ford, 1967	general public	1,573		21.0%	+ 5.7%	letter
Heaton, 1965	car buyers	82		51.2%	+ 24.4%	letter
Myers & Haug, 1969	general public	700		37%	+ 8.1%	letter
Pucel, Nelson & Wheeler, 1971	vocational tech graduates		100/100	51.5%	+ 8.6%	letter
Scott, 1957 (with 1 followup)	females over 60	350		78%	+ 5%	letter
Smith & Hewett, 1972	general public	1,655		43.3%	+ 10%	letter
after 1 followup				51.1%	+ 11.3%	letter
Taylor & Anderson, 1989	loan officers	60		35.0%	+ 1.7%	letter
b. Postcard						
Erdos & Regier, 1977	Wall Street Journal subscribers	1,200		62.2%	+ 4.9%	postcard
after followup				70.8%	+ 4.5%	postcard
Murphy, Daley & Dalenberg, 1991	freight forwarders	481		16.5%	+ 5.8%	postcard
after 1 followup				27.6%	+ 8.1%	postcard
Sutton & Zeits, 1992	trade allies	215	123/92	67%	+ 2%	postcard
c. Phone						
Dillman & Frey, 1974	general public	696		66.9%	+ 2.4%	phone (foot in the door)
Furse et al, 1981	phone customers	907	214/588	22%	+ 1%	phone (foot)
after followup				31%	+ 9%	phone (foot)
Hansen & Robinson, 1980	general public	600		51.6%	+ 28.4%	phone - probe foot
				37.8%	+ 14.6%	phone - simple foot
Hornik 1982	general public	640	135/100	68.9%	+ 32.9%	ingratiation
			135/100	60.7%	+ 24.7%	polite request
			135/100	51.1%	+ 15.1%	rhetorical question
			135/100	47.4%	+ 11.4%	statement
Kamins, 1989	general public	505		58.8%	+ 27.8%	labelled probe foot
				47.1%	+ 16.1%	probe foot
				43.0%	+ 12.0%	simple foot
				39.6%	+ 8.6%	solicitation group
after followup				71.6%	+ 30.6%	labelled probe foot
				60.8%	+ 19.2%	probe foot
				52.0%	+ 11.0%	simple foot
				48.5%	+ 7.5%	solicitation group
Waisanen, 1954	general public	300		46.3%	+ 20.1%	phone
d. Nonspecific or Unique Advance Contact						
Duhan & Wilson, 1990	marketing executives	2,000		40.4%	+ 19.6%	prenotification
Furst & Blitchington, 1979	principals	200		77%	+ 23%	advance letters also sent to secretaries
Gillpatrick et al., 1994	engineers/managers	619	309/200	48.9%	+ 32.9%	phone
			110/200	32.7%	+ 16.7%	referred by someone called
Kephart & Bressler, 1958	nurses	100		53%	+ 1%	advance mail
Martin et al., 1984	university students	2,000		31.3%	+ 16%	prenotified (type not known)

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Table 6 Advance Contact (continued)

Study	Population	N	En/Cn	Reponse Rate	Difference	Type of Advance Contact
Parsons & Medford, 1972	alumni	236		76.1%	+ 0.6%	advance notice
Parsons & Medford, 1972	religious leaders	450		54%	- 11%	advance notice
	religious leaders	150		66%	+ 6%	advance notice
e. Mail -Phone Comparisons						
Faria, Dickinson, & Filipic, 1990	home owners	495		47.9%	+ 14.2%	letter
				42.3%	+ 8.6%	phone
Spry, Hovell, Sallis, Hofstetter, Elder, & Molgaard, 1989	general public	600		29.0%	+ 8.6%	phone
				24.9%	+ 4.5%	postcard
after 1 followup				35.6%	+ 7.4%	phone
				33.6%	+ 5.4%	postcard
Stafford, 1966	college students	1,247	214/614	68.2%	+ 47.7%	phone
			420/614	43.7%	+ 22.8%	letter
Sutton & Zeits, 1992	rebate program participants	186	26/25	96%	+ 4%	phone and postcard
			67/25	88%	- 4%	postcard
			68/25	81%	- 9%	phone
Sutton & Zeits, 1992	business customers	1,063	106/249	70%	+ 12%	phone and postcard
			346/249	63%	+ 5%	phone
			362/249	59%	+ 1%	postcard
Walker & Burdick, 1977	credit card holders	700	200/300	54.0%	+ 15.2%	letter
			200/300	51.0%	+ 12.2%	postcard
Wynn & McDaniel, 1985	exercise, recreational club members	569	123/324	48.8%	+ 31.2%	phone permission foot
			122/324	48.4%	+ 30.8%	phone probe foot
Kerin, 1974	general public	659		47.4%		phone
				38.1%		impersonal form letter
Kerin, 1983	credit applicants		149	51%		phone
			193	33%		letter
f. Comparison/Combination with Followup, Number of Contacts						
Jones & Lang, 1980	home buyers	2,926		30.7%		advance postcard & reminder postcard
				25.3%		postcard reminder (no advance notice)
				20.4%		advance postcard
Kephart & Bressler, 1958	nurses		100	68%		followup but no advance notice
			100	67%		advance notice and followup
			100	53%		advance notice
			100	52%		neither advance nor followup
Futrell & Lamb, 1981	farmers & ranchers	2,002		12.0%		one contact
				19.5%		two contacts
				22.8%		three contacts
				27.3%		four contacts
Peterson, Albaum & Kerin, 1989	general public	9,623		10.0%		one contact
				13.6%		two contacts
				17.6%		three contacts
				21.6%		four contacts
Smith & Bers, 1987	alumni	856		35.5%		one followup
				51.5%		two followups

Note. Definitions/examples:

Foot in the door - Advance contact that includes asking a few simple questions, with the idea that if an individual complies with a simple request, the individual will be more likely to comply with a larger request.

Permission foot - A foot in the door advance contact in which the respondent is asked permission to send him/her the questionnaire

Probe Foot - Advance contact that asks a few simple questions followed by a probe to get respondent to tell why s/he responded as s/he did

Labeled probe foot - A probe foot advance contact in which the respondent is described by the caller as 'helpful' and "cooperative"

Table 7

Organizational Sponsors

Study	Population	N	n	Reponse Rate	Condition
Albaum, 1987	credit union members	600		52% 46.8% 42.5%	university credit union research firm
Armstrong, 1991	temporary employees	950		41% 40%	company headquarters fictitious consulting firm
Chawla, Balakrishnan & Smith, 1992	medical equipment dealers	600		19.8% 9.4%	university stationery, university sponsor no letterhead, sponsor ID
Erdos & Regier, 1977	Wall Street Journal subscribers	400		70% 51%	Wall Street Journal market research firm
after followup				77.5% 61.5%	Wall Street Journal market research firm
Faria & Dickinson, 1992	business customers	1500		43.5% 24.4%	university market research firm
Greer & Lohtia, 1994	sales executives	800		23.5% 18.5% 7.0% 9.5%	honor society university sponsor market research company no sponsor
Hawkins, 1979 (with 1 followup)	general public	930		45.6% 41.5% 29.6%	university fictitious research firm actual sponsoring firm for department store
Houston & Nevin, 1977	general public	2000		42.3% 40.4%	university research firm
Jones & Lang, 1980	home buyers	2926		28.7% 22.2%	university sponsor realtors' association
Jones & Linda, 1978 (with 1 reminder)	meeting planners	4212		34.7% 29.0% 24.7%	university government agency marketing research firm
Peterson 1975	consumers	3840		33.7% 20.7%	university business
Rucker, Hughes, Thompson, Harrison, & Vanderlip,1984	alumni	384		32.7% 27.0%	animal science textiles & clothing dept
after 2 followups				54.7% 54.5%	animal science dept textiles & clothing
Taylor, 1987	citrus growers	3467	1,627 1,840	50.1% 33.2%	familiar sponsor (State Agency) unfamiliar
after 1 followup				66.7% 47.3%	familiar unfamiliar
after 2 followups				76.3% 59.0%	familiar unfamiliar
Watson, 1965	Business Week subscribers	10,500	500 1,000	32% 30%	Business Week letterhead blind letterhead

Table 8

Individual Sponsors

Study	Population	N	Reponse Rate	Condition
Chawla & Nataraajan, 1994	exporters- contact person had American-Christian sounding name	800	37.5%	graduate student, American-Christian name
			35.5%	Small Business Institute director, American-Christian name
			31.5%	professor, foreign-sounding name
			27.5%	undergraduate, foreign-sounding name
Feild, 1975	university faculty	306	76.5%	male researcher
			69.6%	female researcher
			64.7%	letters signed by both male & female
Friedman & Goldstein, 1975	travel agents	1193	64%	Hispanic name - Jose Mangual
			64%	Jewish name - Hershey Friedman
			66%	ethnically unidentifiable - Steven Phillips
Friedman & San Augustine, 1979	general public	600	28.6%	Leroy Jefferson
			31.0%	John Richardson
Hawes, Crittenden & Crittenden, 1987	supermarket executives	472	37.9%	Ph.D. candidate
			35.5%	university deptartment head
Horowitz & Sedlacek, 1974	professors	600	68.7%	professors
			68.7%	graduate students
Labrecque, 1978 (with followups + incentive)	marina customers	200	50.5%	owner signed
			36.5%	service manager signed
Nitecki, 1978	librarians	738	71.1%	high prestige - American Library Assn.
			72.8%	moderate - prof colleague, University Library
			76.4%	low - graduate student, MS thesis
Rucker et al., 1984	alumni	384	30.8%	student
			29.2%	professor
after 2 followups			55%	student
			54.2%	professor
Vocino, 1977 (with 1 followup)	professional organization members	1400	37.1%	prominent organization member
			33.9%	relatively unknown member
Wilde, Tonigan & Gordon, 1988	postsecondary instructors & national lab employees	426	48.3%	professor
			45.1%	graduate student association president
			43.3%	graduate student

Table 9

Personalization

Study	Population	N	En/Cn	Reponse Rate	Difference	Condition
a. Personalization on Initial Mailing						
Anderson & Berdie, 1975	university administrators	117		29%	-1	envelope hand addressed (vs. typed)
	university faculty	200		16%	-7%	envelope hand addressed (vs. typed)
	graduate assistants	1,137		31%	nd	envelope hand addressed (vs. typed)
	uudergraduate students	428		24%	+11%	envelope hand addressed (vs. typed)
Andreason, 1970	lottery winners	515		37.3%		A. least personal, mimeo, dear lottery winner
				27.3%		B. typed, salutation by name
				33.8%		C. typed, salutation by name, p.s.
after followup				60.5%		A. least personal
				56.8%		B.
				57.8%		C. personalized
Blumenfeld, 1973 (with 1 followup)	physical therapists	132		85%	+ 9%	auto-typed, personal, signed (vs. all mimeographed
Childers, Pride & Ferrell., 1980	American Marketing Assn. (academicians)	700		33%		handwritten ps
				36%		typed ps
Childers et al.., 1980	business practitioners	1,001		34%		handwritten ps
				31%		typed ps
Childers & Skinner,1985	insurancepolicyholders	1,500	500/500	61.3%	+ 3.8%	computer generated name and address (vs. labels)
Clark & Kaminski, 1988	marketing subscribers	1,000		37.5%	+ 11 4%	handwritten cover letter (vs. form letter)
Clausen & Ford, 1947	veterans - initial nonrespondents	1,700	700/600	35%	- 3%	personal signature
Clausen & Ford, 1947	veterans - initial nonrespondents	1,700	700/600	38%	+ 3%	personal salutation
Cookingham, 1985	alumni	340		80%	+ 2%	address typed on envelope (vs. labels)
Cookingham, 1985	alumni	340		63%	- 2%	address typed on envelope (vs. labels)
Cox, Anderson & Fulcher, 1974	general public	4,000		21.5%	+ 7.4%	personalized cover letter
Dillman & Frey, 1974 (with 2 followups)	alumni	891		77.1%	+ 8.4%	personalized cover letter: addresses, salutation, signature
Fields & Paksoy, 1991	general public	5,000		31.6%	- 4.4%	addressed envelopes (vs. labels)
Fields & Paksoy, 1991	general public	5,000		34.7%	+ 1.8%	personalized: inside address, personal salutation, addressed envelope (vs. label)
Gitelson & Drogin, 1992 (with 2 followups)	farm show attendees nonrespondents	300		17%	+ 4%	personalized salutation, signature
Green & Kvidahl, 1989	teachers	600		73%	+ 10%	pers letter, salutation, address, signature
after 2 followups				76.7%	+ 11%	personalized
Green & Stager, 1986 (with 2 followups)	teachers	750		83.3%	+ 4.2%	salutation (*Dear* name) by hand (vs. *Dear Educator*)
Green & Stager, 1986 (with 2 followups)	teachers	750		77.7%	- 5.4%	hand signed
Hawes, Crittenden, & Crittenden, 1987	supermarket exec	472		40.4%	+ 7.2%	individually typed, inside address, *Dear Mr,* signature
Horowitz & Sedlacek, 1974	professors	600	240/240	68.8%	+ 2.5%	personally signed

Table 9. Personalization (continued)

Study	Population	N	En/Cn	Reponse Rate	Difference	Condition
Houston & Jefferson, 1975	new car buyers	400		34.0%	- 15.5%	personalized
Kawash & Aleamoni, 1971	university faculty	3,091		28.5%	+ 1.3%	hand signed
Kerin, 1974	general public	659		42.9	+ 2%	personal cover letter, PS, *Dear MR/Mrs,* signed
Kerin & Harvey, 1976	Fortune 500 companies	440		42.3%	+ 13.2%	individual cover letters
Kernan, 1971	general public	400		37.0%	- 1.5%	envelope addressed to respondent by name (vs. occupant)
				42.9%	- 1.5%	personalized letter, salutation and signature, hand addressed envelope
Kimball, 1961	electronics mfrs	3,000	1,000/1,000	30.3%	+ 0.1%	personal address (vs *Dear Sir*)
Linsky, 1965	nurses	912		40.4%	+ 7.6%	handwritten salutation & signature
Martin & McConnell, 1973	general public	240		18.3%	+ 1.6%	individually typed letter, signed
Martin et al.,1984	university students	2,000		24.3%	+ 2%	personalized
Matteson, 1974	professional organization	2,123		31.9%	+ 9.9%	address, personalized salutation, signed
Moore, 1941	superintendents	494		62.2%	+ 9.5%	typed cover letter (vs. duplicated)
after reminder				81.9%	+ 16.3%	typed
Peterson, 1975	consumers	3,840		27.2%	nd	typed address (vs. label)
Roberts, McCrory & Forthofer, 1978	dentists	1,190		32.0%	+ 1.4%	personalized salutation
after 1 followup				50.2%	- 0.9%	personalized salutation
after 2 followups				70.0%	+ 2.4%	personalized salutation
Shale, 1987	course dropouts	196		39.8%	+ 1%	personalized letter, signed
Simon, 1967	magazine readers/employees		50/450	28%	+ 2%	personally typed cover letter (vs. mimeo)
	general pubic		50/450	46%	+ 8%	personally typed cover letter (vs. mimeo)
Simon, 1967	magazine readers/employees		120/120	51.7%	- 7.5%	personally typed cover letter (vs. mimeo)
	general public		100/100	60%	+ 7%	personally typed cover letter (vs. mimeo)
Simon, 1967	hospital insurance plan subscribers		100/874	53%	+ 15%	personally typed letters (vs. mimeo)
Smith & Bers, 1987	alumni	856		47%	+7%	personalized: *"Dear Ann"*, signed, typed address on envelope, stamped r return envelope, stamped *"Alumni Ssurvey"*, handwritten postcard with commemorative stamp
				40%		not personalized, labels, bulk mail, etc
Steele, Schwendig, &. Reilly, 1989	unknown	719		36.3%	+ 5.9%	handwritten address on envelope (vs. label)
				29.4%	- 1%	typed onto envelope (vs. label)
Sutton & Zeits, 1992 (with 3 followups)	business customers	1,063	139/114	62%	+ 2%	personalized (use of name on mailings)
Sutton & Zeits, 1992 (with 3 followups)	trade allies	215	46/93	67%	+ 2%	personalized (use of name on mailings)
Watson, 1965	Business Week subscribers	10,500	500/1,000	30%	+ 2%	name and address on letter questionnaire
Watson, 1965	Business Week subscribers	10,500	500/1,000	28%	- 2%	*Dear Mr.* _____ (vs. Dear Sir)

Table 9. Personalization (continued)

Study	Population	N	En/Cn	Reponse Rate	Difference	Condition
Weilbacher & Walsh, 1952	alumni	472		41%	- 4%	personalized letter,last name, signed
Woodward & McKelvie, 1985	college business & social science students	400		31%	+ 5%	box number + *Dear Mr/Ms.* Surname (vs. box no. only)
				29%	+ 3%	box number + *Dear Mr./Ms.* Christian & Surname
				41%	+ 15%	box number + *Dear* Nickname
Worthen & Valcarce, 1985	teachers	1,000		27.6%	+ 4.8%	personalized letter, typed, addressed by name, signed
b. Personalization Effects on Followup Mailings						
Andreason, 1970	lottery winners	515		36.4%	- 4.3%	handwritten followup (vs. mimeographed)
Carpenter, 1974	general public					
			302	64.3%		labels,Dear Arizonan,hand signed
			302	66.0%		name/add on ltrs,window envelopes,
			302	72.2%		typed ltr w name/add, hand signed, typed envelopes
			2,269	71.3%		typed envelopes, names/add typed on letters,hand signed (control)
	(with 3 followups)					
Dillman & Frey, 1974 on 3rd followup	alumni	216 NR	45	73.3%		personalized, all four mailings
			46	50.0%		personalized first three,high personalized fourth
			61	45.9%		not personalized, all four mailings
			64	45.3%		not personalized first three, highly personalized fourth
Worthen & Valcarce, 1985	teachers	730 NR	177	35.6%		personalized followup (after pers. first)
			188	29.8%		personalized followup (after form first)
			177	26.6%		form followup (after pers. first)
			188	30.4%		form followup (after form first)

Table 10

Appeals

Study	Population	N	n	Reponse Rate	Difference	Condition
a. Control Group Studies						
Childers, Pride & Ferrell., 1980	American Marketing Assn. (academicians)	700		39%	- 5%	postscript (ps) - egoistic
				38%	- 6%	ps - social utility
				28%	- 16%	ps - help the sponsor
Childers et al.., 1980	business practitioners	1,001		31%	nd	egoistic
				34%	+ 3%	help the sponsor
				33%	+ 2%	social utility
Frazier & Bird, 1958	general public	7,000		31.4%	+ 6.7%	ps - help the sponsor
Linsky, 1965	nurses	912		35.7%	- 0.9%	social utility
				36.4%	+ 0.4%	help the researchers
				42.5%	+ 12.7%	importance of respondent
Martin & McConnell, 1973	general public	240		14.2%	- 6.6%	importance of respondent
Pressley 1978 (with 1 followup)	executives	343		40.0%	-2.8%	handwritten ps (appreciation)
Pressley 1978 (with 2 followups)	executives	356		44.4%	-1.7%	handwritten ps (appreciation)
Roberts, McCrory & Forthofer, 1978	dentists	1,190		29.8%	- 3.0%	social appeal
after 1 followup				49.4%	- 2.6%	social appeal
after 2 followups				68.1%	- 1.4%	social appeal
b. Comparison Group Studies - Egoistic, Altruistic, Social Utility, Help the Sponsor						
Champion & Sear, 1969	general public	2,290		36.8%		egoistic
				33.2%		altruistic
Green, Jacobi, Lam, Boser, & Hall, 1993	teachers	1,500		47.1%		social utility
				46.1%		user
Houston & Nevin, 1977	general public	2,000		43.0%		social utility
				41.2%		egoistic
				40.8%		help the sponsor
				40.4%		combined
Jones & Lang, 1980	home buyers	2,926		26.4%		social utility
				23.2%		egoistic
Kerin & Harvey, 1976	Fortune 500 companies	440		41.4%		altruistic
				30.0%		egoistic
Sletto, 1940	alumni	300		67%		altruistic
				64%		social utility
				60%		challenge to complete
Tollefson and others, 1984	teachers	1,200		50.8%		help the sponsor
				49.3%		social utility
				23.3%		egoistic
Tyagi, 1989	insurance sales	600		79.7%		egoistic
				58.3%		altruistic

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Table 10. Appeals (continued)

Study	Population	N	n	Reponse Rate	Difference	Condition
c. Unique Conditions						
Goulet, 1977 (on third wave)	company presidents	621(NR)		11.6%		direct appeal
				5.9%		addressee choice
				11.3%		open-end elaboration
				16.4%		why not/new chance
Green Jacobi et al., 1993	teachers	1500		47.7%		authority
				45.5%		affiliation/support
Hendrick, Borden, Giesen, Murray, & Seyfried, 1972	general public	400		21.0%	+ 1.0%	respondent ingratiation
				18.3%	- 4.5%	solicitor ingratiation
				15.5%	- 3.5%	both (versus neither)
				23.8%	+ 4.8%	one only (versus neither)
Hoppe, 1952	motorists		318	46.8%		general letter
			477	57.0%		selected by chance
			2,040	64.3%		plea
Hoppe, 1952	motorists		1,189	19.6%		general letter
			275	32.0%		plea
Homik 1982 (appeal as part of advance contact, compared with group not contacted)	general public	640	135/100	68.9%	+ 32.9%	ingratiation
			135/100	60.7%	+ 24.7%	polite request
			135/100	51.1%	+ 15.1%	rhetorical question
			135/100	47.4%	+ 11.4%	statement
Jones & Linda, 1978 (with 1 followup)	meeting planners	4212		31.0%		user appeal
				31.0%		science appeal
				26.3%		resort park appeal
Sirken Pifer & Brown, 1960	families of decedents?	658		50%		firm cover letter
				32%		permissive (help the sponsor)
after 1 followup				72%		firm
				59%		permissive
after 2 followups				89%		firm
				87%		permissive
after personal interview				94%		firm
				95%		permissive

Note: Definitions/examples of various appeals

Egoistic (Childers et al., 1980)	"Your opinions are important. It's important for you to express your opinion so we will know more about the types of ___ that you desire"
Social utility (Childers et al., 1980)	"Your opinion can help provide information that contributes to understanding more about _____."
Help the sponsor (Childers et al., 1980)	"We need your assistance. Your opinions are very important to our successful completion of this study."
Direct appeal (Goulet)	Brief, one-paragraph request to complete the questionnaire
Addressee choice (Goulet)	Request for at least partial completion and left selection of questions to the respondent
Open-end elaboration (Goulet)	Asked only that the two open-end questions at the end of the questionnaire be answered
Why not/new chance (Goulet)	Requested addressee to assist researcher by explaining why he did not respond and offering him another chance to complete the attached questionnaire.
Authority (Green et al, 1993)	"As a professional, we ask that you contribute your expertise."
Affiliation (Green et al., 1993)	"As a fellow educators, we ask that you join with other New Mexico teachers."
Respondent ingratiation (Hendrick)	Adjectives flattering respondent in cover letter: "generous, kind, gracious unselfish, very kind"
Solicitor ingratiation (Hendrick)	Adjectives flattering solicitor included in cover letter: "earnestly, sincerely, genuinely, respectfully, extremely (grateful), humbly, sincerely"
Plea (Hoppe)	"Please do not let your failure to return this card make it imposssible for us to obtain a 100 per cent return."
Ingratiation (Hornik, 1982)	"We are earnestly asking for your generous help in completing and returning the questionnaire."
Polite imperative (Hornik, 1982)	"Please complete and questionnaire and please return it to us."
Rhetorical question (Hornik)	"Won't you complete and return the questionnaire to us."
Statement (Hornik)	"The aim of this call is to ask you to complete the questionnaire and return it to us."
User appeal (Jones & Linda)	Help researchers better understand interests and needs of respondents. Respondents will be better served as a result.
Science appeal (Jones & Linda)	There hasn't been a scientific study of the topic.
Resort park appeal (Jones & Linda)	Help researchers understand interests and needs. Facilities, services that are provided will be improved.
Place/importance of the respondent (Linsky)	Respondent is part of a small group selected for the study from among larger population. Emphasizes that people in the group are best able to provide the information in the survey. The value of the results depend on receiving all questionnaires.
Help the sponsor (Linsky)	Need the help of the respondent
Social Utility (Linsky)	As this study..Lis the first in the country, all eyes will be on Washington. A report of results will be made to ... later this year. This study will improve ...ability to provide its membership with opportunitites for prof growth as well as strengthen the position of the nursing in the community.
Appreciation (Pressley)	"In anticipation of your cooperation, please accept my personal thanks."
Altruistic (Sletto)	Called upon the individual to help improve things for students (other individuals) who followed them
Social utility (Sletto)	Called attention to changes in education and requested help of respondents to guide the changes
Challenge	Challenged recipient to help do somethat that people said couldn't be done. People believed the study would not succeed because alumni are too busy or not interested enough to participate
ps	a postscript that usually contains an appeal to encourage the individual to respond
Permissive (Sirken)	Requested that the respondent "help us in this study"
Firm (Sirken)	Matter of fact statement, "Your health department requests that you complete the form and return it within the next few days.

Table 11

Outgoing Postage - First Mailing

Study	Population	N	n	Reponse Rate	Condition
a. Special Mail versus First Class/Regular Mail					
Anderson Niebuhr & Gum, 1987 (with 1 followup)	doctors	132		54% 34%	Federal Express first class
Champion & Sear, 1969	general public (nonrespondents)	300		61.2% 41.9%	special delivery regular mail
Echternacht, 1973	high school students	120		41.7% 26.7%	certified mail (30 cents + 1st class) first class mail
Gitelson & Drogin, 1992 (with 3 followups)	farm show attendees (nonrespondents)	300		43% 17%	certified mail regular mail
Kephart & Bressler, 1958	nurses	300		66% 60% 52%	special delivery air mail regular mail
Tedin & Hofstetter, 1982	general public		331 1,012	26% 14%	certified mail first class
after 1 (first class) followup				44% 31%	certified mail first class
b. First Class versus Other Third Class or Bulk Mail					
Gitelson et al., 1993	road race participants	1,200		60.5% 63.0% 64.5%	first class metered bulk mail
Gullahorn & Gullahorn, 1963	former grantees	7,570		51.4% 48.6%	first class third class
Kernan, 1971	general public	400		38.5% 36%	first class stamp bulk rate
McCrohan & Lowe, 1981	new car owners	1,000		33.4% 30.8%	metered first class metered third class
Watson, 1965	Business Week subscribers	10,500		33% 30%	first class third class
c. Stamped versus Metered/Permit Postage					
Clark & Kaminski, 1988	marketing journal subscribers	1,000		33.3% 30.4%	first class postage stamp nonprofit mailing permit
Clausen & Ford, 1947	veterans - initial nonrespondents	1,700	400 400	61% 36%	air mail & special delivery franked
Dillman, 1972	general public	4,500		24.2% 23.8%	ecology stamps on first mailing metered
Hensley, 1974	teachers	530		56.7% 58.7% 58.0%	commemorative stamp regular stamp metered
Peterson, 1975	consumers	3,840		27.8% 26.6%	stamped metered
Vocino, 1977 with 1 followup	American Society for Public Administration	1,400		34.1% 36.8%	commemorative stamp metered
d. Stamp combinations					
Longworth, 1953	general public	100		21% 19%	one cent, two cent, and a three cent stamp one 6 cent stamp

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Table 12

Outgoing Postage - Followup Mailings

Study	Population	N	n	Reponse Rate	Condition
Anderson Niebuhr & Gum, 1987 (with 1 followup)	doctors	132		54%	outgoingfirst mailing Federal Express
				34%	first class
after 2nd followup sent Fed Ex to all NR				62%	those originally sent Fed Ex
				49%	those originally sent first class
after phone followups				85%	those originally sent Fed Ex
				75%	those originally sent first class
Dillman, 1972	general public			30.0%	postcard 1st followup - new postmark
	nonrespondents			31.1%	old postmark
Gullahorn & Gullahorn, 1959 (with 1 followup)	former grant recipients	168		62.4%	special delivery on second followup
	nonrespondents			34.9%	regular mail
House Gerber & McMichael, 1977 (with general posted notices, personal reminders, mail)	employees		281	42.7%	certified mail
	nonrespondents		368	25.8%	first class
			341	20.2%	personal followup handed out by supervisors
Phillips, 1951 (after 1 followup)	alumni		27	25.9%	first class mail on third mailing
	nonrespondents		14	64.3%	special delivery on third mailing
Sirken Pifer & Brown, 1960	doctors	1731	872	60%	first wave
			859	65%	
after 1 followup				92%	certified mail reminder (+ 32% from first wave)
				86%	regular mail reminder (+ 21%
after 1, 2 followups				92%	certified mail reminder only
				96%	regular mail reminder followed by certified mail
after 2,3 followups				97%	certified mail, then phone
				98%	regular mail, certified, then phone reminder
Sirken Pifer & Brown, 1960	families of decedents				
		1436	480	40%	after 1st mailing
			483	45%	
			473	44%	
after followup				68%	regular mail first followup (+ 28% over first mailing)
				83%	regular mail first followup (+ 38%)
				89%	certified mail first followup (+ 45%)
after second followup				90%	regular mail + certified mail
				97%	regular mail + personal interview
				97%	certified mail + personal interview

Table 13

Return Postage

Study	Population	N	n	Reponse Rate	Difference	Condition
a. First Class Stamped Return Envelopes Compared With Business Reply Envelopes						
Clark & Kaminski, 1988	marketing subscribers	1,000		35.3%	+ 6.9%	first class stamped
Corcoran, 1985	social workers	300		45.3%	+ 11.3%	first class stamped
after 1 followup				50%	+ 4%	stamped
Elkind Tryon & deVito, 1986	psychologists	500		48.0%	+ 3.2%	stamped
after 1 followup				64.4%	- 0.4%	stamped
Finn, 1983	general public	943	466/477	32.3%	+ 11.7%	first class stamped
Gullahorn & Gullahorn, 1963	former grantees	7,570		51.8%	+ 3.5%	stamped return
Hammond, 1959	general public - males	2,008		42.6%	+ 9.3%	stamped
Harris & Guffey, 1978	consumers	990	451/439	36.4%	+ 6.1%	stamped
Hewett, 1974	general public	1,760		50.7%	+ 8.5%	stamped
Jones & Linda, 1978	meeting planners	4,212		32.7%	+ 7.9%	first class stamp
Martin, Duncan & Sawyer, 1984	university students	2,000		23.0%	- 0.5%	stamped
Martin & McConnell, 1973	general public	240		22.5%	+ 10%	commemorative stamp
Peterson, 1975	consumers	3,840		25.6%	- 3.2%	stamped
Veiga, 1974	managers	100		80%	+ 23%	preaddressed stamped envelope
Watson, 1965	Business Week subscribers	10,500		30%	+ 9%	5 cent stamp (1st class)
Wiseman, 1973	general public	464		49.1%	+ 12.5%	stamped
b. Other Variations on Return Postage						
Glisan & Grimm, 1982	farmers	1,512		17.5% 21.3%		commemorative stamp regular return postage
Hensley, 1974	teachers	530		58.3% 54.3% 60.7%		commemorative stamp regular stamp metered
Jones & Linda, 1978	meeting planners	4,212		30.9% 32.7%		commemorative stamp regular first class stamp
Labrecque, 1978	marina custoners	200		46.9% 43.4%		commemorative stamp regular stamps
Kimball, 1961	electronics mfrs	3,000	1,000/1,000	39.7% 32.1%		air mail stamp air mail permit
McCrohan & Lowe, 1981	new car owners	1,000		32.6% 31.6%		metered first class mailing permit
Veiga, 1974	managers	100		82% 80%		inter plant mail system preaddressed stamped envelope
Watson, 1965	Business Week subscribers	10,500	1,000 500 500	30% 35% 29%		.05 stamp (control) (first class) (1,000) five .01 stamps commemorative stamp

Table 14

Effect of Stating Deadlines and Using Colored Paper in Questionnaires

Study	Population	N	En/Cn	Reponse Rate	Difference E - C	Condition
a. Deadline						
Futrell & Hise, 1982	industrial accountants	500		20.8%	+ 3.2%	same day deadline
Henley, 1976	general public	1,000		28.8%	+ 4.7%	1 week deadline
Nevin & Ford, 1976	university students	1,040		43.0%	- 6.8%	5 day deadline
				48.5%	- 1.3%	7 day deadline
				53.4%	+ 3.6%	9 day deadline
Pressley, 1978 (with 1 followup)	executives	343		42.1%	+ 1.4%	5 day deadline
Pressley, 1978 (with 1 followup)	executives	356		43.3%	- 3.9%	5 day deadline
Roberts, McCrory & Forthofer, 1978	dentists	1,190		34.7%	+ 5.8%	deadline
after 1 followup				54.3%	+ 7.3%	
after 2 followups				70.1%	+ 2.6%	
Vocino, 1977 (with 1-2 followups)	professional organization members	1,400		32.6%	- 50.8%	1 week deadline
b. Colored Paper						
Glisan & Grimm, 1982	farmers	1,512		20.0%	- 0.2%	tan
				17.9%	- 2.3%	blue
Greer & Lohtia, 1994	sales executives	800		14.5%	+ 0.5%	yellow
				15.5%	+ 1.5%	pink
				14.5%	+ 0.5%	green
Gullahorn & Gullahorn, 1963	former grant recipients	7,370		50.9%	+ 1.6%	green
LaGarce & Kuhn, 1995	Goodyear dealers	3,540		17.6%	+ 4.3%	blue & yellow
Matteson, 1974	professional organization members	2,123		28.3%	+ 2.7%	pink
Pressley & Tullar, 1977 (with 1 followup)	market research directors	280		38.8%	- 4.9%	yellow
				35.8%	- 7.9%	blue
				37.3%	- 6.4%	green
				37.3%	- 6.4%	color (versus white)
Pucel, Nelson & Wheeler, 1971	vocational tech graduates		100/100	50.0%	+ 7.1%	light green

Table 15

Anonymity - Effect of Including or Requesting Identifying Information

Study	Population	N	En/Cn	Reponse Rate	Difference	Condition
a. Control Group Studies						
Albaum, 1987	credit union members	600		50.3%	+ 7%	coded/explained
Erdos & Regier, 1977 (with 1 followup	Wall Street Journal subscribers		400/400	47%	+ 2%	coded
Erdos & Regier, 1977	Wall Street Journal subscribers		400/400	57%	- 3%	coded
Hoppe, 1952	motorists	1464		21.7%	- 0.7%	coded
Hoppe, 1952	motorists	1835		64.6%	- 1.2%	coded
King, Francis, 1970	college students	200		63%	- 4%	coded
King, Francis, 1970 (2nd study)	college students	200		68%	- 2%	coded
McKee, 1992	nonprofit professional organization members	280		58.6%	+ 20%	coded/explained
after followup				77.1%	+ 22.8%	coded
Stevens, 1974	alumni	200		57%	- 2%	coded
Wildman, 1977	teachers	320		66%	nd	coded
Watson, 1965	Business Week subscribers	10,500	500/1,000	30%	+ 2%	name/address on letter questionnaire
Fuller, 1974	Navy officers	12,376		51%	+11%	service # requested
Fuller, 1974	Navy enlisted men	29,565		36%	- 3%	service # requested
Futrell & Swan, 1977 (with 2 followups)	hospital supply salesmen	201		72%	+ 4%	identified (name requested)
McDaniel & Rao, 1981	appliance purchasers	810		24.1%	- 2.4%	name requested
b. Comparison Group Studies						
Childers & Skinner, 1985	insurance policyholders	1500	500/500	61.3%		preprinted name/address on return envelope
				57.5%		envelope with *FROM:* and 3 blank lines
Childers & Skinner, 1985	insurance policyholders	1500	500/500	59.5%		reason for ID/request for name
				59.3%		no message
Erdos & Regier, 1977 (with 1 followup)	Wall Street Journal subscribers	800		51%		ID number, not mentioned
				45%		ID, reference in letter
				46%		ID, option to remove
				45%		control, no ID
Futrell & Hise, 1982	industrial accountants	500		23.6%		anonymity statement in cover letter
				14.0%		anonymity not mentioned
Mason, Dressel & Bain, 1961	beginning teachers	741		80.5%		ID code number on form
				80.8%		ID code + name and address on form
Shale, 1987	course dropouts	196		35.7%		option to remove precoded personal information
				42.9%		not mentioned
Tyagi, 1989	insurance salespeople	600		75.7%		anonymity statement
				62.3%		not mentioned

Note. En = number in Experimental (ID coded) group; Cn = number in control (or uncoded - anonymous) group

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Table 16

Questionnaire Length

Study	Population	N	n	Reponse Rate	Condition
Adams & Gale, 1982	university students	1650		41%	1 page
				47%	3 pages
				22%	5 pages
Berdie, 1973	professors	108		64%	1 page, 10 questions
				56%	2 pages, 20 questions
				42%	4 pages, 40 questions
Biner & Kidd, 1994	general public	200		54%	1 page, 10 questions
				45%	5 pages, 50 questions
Brown, 1965	physicians	523		68%	postcard, 2 screening questions
				53%	1 page
after followup				92%	postcard
				91%	1 page
after second (phone) reminder				95%	postcard
				95%	1 page
Dillman, Sinclair & Clark, 1993	general public	17,000		63.4%	1 page 2 sides folded
				66.8%	booklet 8 pages (same items as above but only had to list residents once
				71.4%	micro - 1 page both sides respondent friendly fewer questions - 5 per resident
				68.0%	Micro (as above) but asking soc security numbers
				70.9%	card stock 5 1/2 x 12, only names & birthdates
Hansen & Robinson, 1980	general public	600		43.3%	short, 32 questions
				31.7%	long, 102 questions
Hendrick et al, 1972	general public	400		23%	1 page, 24 items
				18%	7 pages, 182 items
Jacobs, 1986	students	200		71%	1 page, 14 items
				75%	2 pages, 20 items
after reminder				81%	1 page, 14 items
				79%	2 pages, 20 items
Mason, Dressel & Bain, 1961	beginning teachers	741		82.0%	6 pages, 62 items
				79.3%	8 pages, 92 items
Munger & Loyd, 1988	school principals		207	63%	2 pages, 27 items
			100	53%	5 pages, 61 items
Newman, 1962	magazine subscribers	375		43.1%	2 pages
				49.3%	4 pages
Powers& Alderman, 1982	high school juniors	2012		51.9%	6 pages, 20 questions, 69 responses
				43.6%	7 pages, 28 questions, 83 responses
Roscoe Lang & Sheth, 1975	phone customers	2144		67.05%	4 pages, 28 items
	survey nonrespondents			67.45%	6 pages, 54 items
Rudd & Maxwell, 1980	general public	1200		32%	1 page, 15 items
				34%	3 pages, 45 items
Sletto, 1940 (with 3 followups)	alumni	300		68%	10 page vocational questionnaire
				60%	25 page social-civic questionnaire
				63%	both questionnaires, 35 pages

Table 17

Questionnaire Layout/Format Variations Using Same Questions

Study	Population	N	Reponse Rate	Condition
Boser, 1990a	alumni	300	38.4%	8 1/2 x 11, stapled, typed
			44.0%	11 x 17 folded, booklet, professional font
after 1 followup			54.1%	8 1/2 x 11
			60.0%	booklet
Boser, 1990a	alumni	297	39.0%	typed 8 1/2 x 11
			41.4%	legal size, folded into booklet
after reminder			52.7%	typed
			55.2%	booklet
after 2nd followup			67.1%	typed
			70.3%	booklet
after 3rd followup			78.8%	typed
			75.9%	booklet
Champion & Sear, 1969	general public	2,290	27.5%	3 pages
			38.4%	6 pages
			39.4%	9 pages
after followup		300	48.9%	3 pages
			53.5%	6 pages
			52.0%	9 pages
Childers & Ferrell, 1979	American Marketing Assn. members practitioners	440	38%	8 1/2 x 11
			28%	8 1/2 x 14
			36%	printing on front and back (1 sheet)
			30%	printing on front only (2 sheets)
Dillman, Sinclair & Clark, 1993 17,000 for 5 groups	general public	17,000	66.8%	booklet - 8 pages, 8 1/2 x 11
			63.4%	control - 1 page 2 sided, folded 10 1/2 x 28
Enger, Manning, Shain, Talbert, & Wright, 1992	alumni	7,078	27.9%	2 pages
			26.3%	1 page (smaller type)
			23.3%	1 page/self mailer
Ford, 1968	general public	1,556	22%	printed, folder-type, 1 sheet folded, both sides, four 8 1/2 x 11
			20%	mimeographed legal-size, stapled, 4 p 8 1/2 x 11 one side only
Goldstein & Friedman, 1975	travel agents	1,200	74.2%	8 1/2 x 11 " form with 1 followup
			54.9%	double postcard
			53.9%	both postcards
			71.1%	form both times
			66.8%	mixed
Hesseldenz & Smith, 1977	alumni	1,056	84.1%	offset printed (personalized by typewriter)
			84.7%	computer prepared with personalization
Horowitz & Sedlacek, 1974	professors	600	73.3%	typed (120
			70.8%	photocopied120
			66.7%	mimeographed 120
Jacobs, 1986	teachers	200	72%	optical scan sheets
			74%	no scan sheet
after reminder			81%	op scan sheets
			79%	without scan sheet
Johnson, Parsons, Warnecke & Kaluzny, 1993, (4 followups)	physicians	2,106	64.2%	booklet 8 1/2 x 11
			58.5%	booklet reduced to 5 1/2 x 8 1/2
LaGarce & Kuhn, 1995	Goodyear dealers	3,540	17.9%	user friendly - less technical appearance, larger font,
			7.7%	standard questionnaire
			16.8%	user friendly plus colored qre
Tollefson et al., 1984	teachers	1,200	53.3%	large format
			45.2%	small format
Wilde, Tonigan & Gordon, 1988	instructors + national lab employees	426	43.7%	3 pages
			48.9%	5 pages

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Table 18

Survey Procedures

Study	Population	N	n	Reponse Rate	Condition
a. Mailing Address					
Ferrell , Childers & Reukert, 1984	marketing managers	440		30% 36%	mailed to home address mailed to work address
McGinnis & Hollon, 1977	packaging engineers	238	98 109	66.3% 67.0%	mailed to home address mailed to work address
Wildman, 1977	teachers	320		61% 71%	mailed to home address mailed to school address
b. Envelope Appearance					
Dommeyer, Elganayan and Umans, 1991	home owners with FHA mortgage insurance	200		21% 8%	envelope teaser no message
Elkind, Tryon & deVito, 1986	psychologists	500		45.2% 47.6%	rubber stamped return address university envelope
after 1 followup				66.0% 63.2%	stamped return address university envelope
Watson, 1965	Business Week subscribers	10,500	500 1,000	27% 30%	*'Personal"* on outgoing envelope no message
Watson, 1965	Business Week subscribers	10,500	500 1,000	28% 30%	*"Attention*: (signer of letter)" on return envelope no statement
c. Commitment Cards					
Childers & Skinner, 1985	insurance agents	2,100	1,709 199 200	81% 83% 85%	card with choice of return time card, no specified ime no prior contact
Duhan & Wilson, 1990	marketing executives		3,000 1,000	20.4% 66.1% 32.3%	prenotification with card (of all in original group) prenotification with card (questionnaires sent only to those who agreed to participate (N = 504) prenotification, no card
Hinrichs, 1975	administrators	2,547		35.9% 38.5%	commitment card no card
after followup				66.5% 62.5%	commitment card group no card
Senf, 1987 (with 2 followups)	church members	750		55% 62%	postcard to indicate questionnaire had been returned postcard with place to state intention to not participate and reason

Note. Envelope teaser (Dommeyer, 1991) A statement stamped in black ink on the outer envelope: *"DID YOU KNOW YOU ARE ENTITLED TO MORE MONEY."*

Table 19

Letter Content Variables

Study	Population	N	Reponse Rate	Condition
a. Cover Letter				
Hawkins, 1979 (with 1 followup)	general public	930	36.3%	full disclosure of right to refuse to participate
			41.1%	no reference
Rucker, Hughes, Thompson, Harrison, & Vanderlip, 1984	alumni	384	32.3%	photo of professionally dressed female letter
			26.8%	photo of casually dressed female
			31.0%	no photo on cover letter
after 2 followups			46.8%	professionally dressed female
			53.8%	casually dressed female
			63.3%	no photo
Wagner & O'Toole, 1985	psychology department heads	106	45%	typical serious letter, personalized
			11%	humorous + free meal offer, impersonal
after followup			83%	traditional
			13%	humorous
b. Time Cue				
Hornik, 1981	general public	600	41.5%	20 minute time cue
			25.1%	40 minute time cue
			31.5%	no time cue (control)
Finlay & Thisthlewaite, 1992	general public	1206	41.8%	10 minute time cue
			46.9%	a few minutes cue
Tollefson et al., 1984	teachers	1,200	41.5%	15 minute time cue
			57.5%	30 minute time cue
			49.3%	no time cue (control)
c. Statement Regarding Intent of Incentive				
Biner & Barton, 1990	general public	200	66.0%	obligation
			52.6%	appreciation
Biner & Kidd, 1994	general public	200	56%	obligation
			42%	appreciation
Robin & Walters, 1976	general public	1522	42.7%	represents cost of second mailing
			40.8%	appreciation (use for coffee/coke)
			37.9%	appreciation
			40.6%	no message
d. Followup Letter Message				
Dommeyer, 1987	general public (NR)	1,059		If no response, interview attempt would be made
			16%	by phone on specified date
			20%	by phone in 2 week period
			12%	in person on specified date
			19%	in person in 2 week period
			19%	control, no message regarding interview

Table 20

Questionnaire Variables

Study	Population	N	n	Reponse Rate	Condition
a. Questionnaire Content					
Dillman, Sinclair & Clark, 1993	general public	17,000		68.0% 71.4%	social security number requested not requested
Sheth, LeClaire & Wachspress, 1980 (with 2 followups)	AT&T customers	1,200		73.1% 73.3%	asked race information no race information
Swan & Epley, 1981	real estate agents	1,000		50% 50%	income categories in $5,000 intervals $10,000 categories
Swan & Epley, 1981	real estate agents	1,000		51% 49%	asked to check one income category allowed to check two adjacent categories
Watson, 1965	Business Week subscribers	10,500	500 500 500 500 1,000	31% 40% 28% 28% 30%	inclusion of corporate image question omission of classification question three competitors on questionnaire unaided-recall question on products control
b. Question Order					
Frey, 1991	skydivers	841		50.7% 52.9%	behavior (easy) questions first cognitive/analytical questions first
Jones & Lang, 1980	home buyers	2,926		27.8% 23.2%	attributes (semantic differential) asked first anchored similarity judgment scales first
Martin & McConnell, 1973	general public	240		21.7% 13.3%	easy questionnaire first hard questionnaire first

Table 21

Study Context

Study	Population	N	n	Reponse Rate	Condition
a. Population					
Gelb, 1975	general public	400		49.5% 30.0%	middle class lower class
Rudd & Maxwell, 1980	general public	1,200		34% 36% 28%	large city A large city B small town
b. Topic, Salience					
Martin, 1994	amateur bowlers	1,731	1,152 579	34.9% 18.3%	survey about bowlers survey about restaurants
Rudd & Maxwell, 1980	general public	1,200		34% 36% 31% 31%	health care current issues quality of life taxes
Webb, 1989	students, agriculture-related majors non-agriculture/undecided		810 2,549	41.6% 40.4%	agriculture-related issues agriculture-related issues
Woodward & McKelvie, 1985	business & social science students	400		60% 67%	high interest questionnaire low interest questionnaire

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